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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/419,749	10/16/1999	TAD A. DEFFLER	063170.6308	1735
5073	7590	11/02/2007		
BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980			EXAMINER COLBERT, ELLA	
			ART UNIT 3694	PAPER NUMBER
			NOTIFICATION DATE 11/02/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/419,749	DEFFLER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ella Colbert	3694	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6 and 9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-4, 6, and 9-21 are pending. Claims 1, 3, and 9 have been amended and claims 10-21 have been added in the communication filed 8/14/07 entered as Response After Non-Final Action.
2. The 35 USC 112, second paragraph rejection is hereby withdrawn for claims 1, 3, and 9.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over M. Douglas McLroy, "Macro Instruction Extensions of Compiler language", hereafter McLroy in view of Official Notice.

With respect to claim 1, McLroy discloses, determining based on a predefined macro language, one or more keywords in a macro language expression, each keyword being associated with an extended macro command that is not included in the predefined macro language (col. 2, page 217 –col. 1, paragraph 1, page 218 and paragraph labeled no. 5-col. 2, paragraph labeled no. 7); executing each executable code retrieved from the registry to run the extended macro command associated with each of the one or more keywords in the macro language, the executable code not included in the predefined macro language and resulting in the performance of a

procedure not performed by execution of the predefined macro language alone (page 215, col. 1-col. 2, paragraph 1.4. –The expression is not recompiled).

McIlroy failed to disclose, retrieving, from a registry of keywords and associated executable codes, an executable code associated with each keyword in the macro language expression. However, this step is well known in the art and performed at runtime and it is not a recompilation but it is a copy as many times as it (the macro) is called. There are three different types of macros, such as preprocessor, compiler, and runtime. A preprocessor macro is defined as for example, the C preprocessor is a macro processor that is used automatically by the C compiler to transform the program before actual compilation; compiler macros are defined as controlling the state of the macro with compiler command options; and a runtime macro is defined as tells the runtime intercept how to identify the construct to converted differently and how to render or convert it to the alternative result which usually results in runtime macros that are executed by conversion code at runtime. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have a registry of keywords and an associated executable code to retrieve and to execute because it is well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language.

With respect to claim 2, McIlroy failed to disclose, extending the registry of keywords and associated executable codes by inserting a new keyword representing a new extended macro command and a new executable code associated with the new keyword. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify McIlroy with the teachings that are well known in the art of C programming because this would allow McIlroy to have a selection of keywords to choose from and to execute with the code. A registry of keywords is well known in

the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language, *supra*.

With respect to claim 9, this independent claim is rejected on grounds corresponding to the reason given for rejected independent claim 1. Applicants' claim 9 has a computer-readable medium encoded with logic operable, when executed on a computer processor, to perform the steps of determining, based on a predetermined syntax of the macro language with steps corresponding to the method of claim 1.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over M. Douglas McLroy, "Macro Instruction Extensions of Compiler language", hereafter McLroy and further in view of (US 4,931,928) Greenfeld and (US 5,737,592) Nguyen et al, hereafter Nguyen in view of (US 5,295,059) Brooks et al, hereafter Brooks.

With respect to claims 3, McLroy failed to disclose, a parser operable to determine, based on a predefined macro language, one or more keywords embedded within a macro language expression, each keyword being associated with an extended macro command that is not included in the predefined macro language. Greenfeld

discloses, a parser operable to determine, based on a predefined macro language, one or more keywords embedded within a macro language expression, each keyword being associated with an extended macro command that is not included in the predefined macro language (col. 8, line 1-col. 9, line 34, fig. 3 and fig. 4). McLroy and Greenfield failed to disclose, a registry of keywords and associated executable codes, including one or more keywords and one or more executable codes, each keyword being associated with a respective one of the executable codes and a macro handler operable to receive the one or more keywords from a parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with each keyword embedded within the macro language expression, and execute the retrieved executable codes to run the extended macro command associated with each of the one or more keywords without recompiling the macro language. Nguyen discloses, a registry of keywords and associated executable codes, including one or more keywords and one or more executable codes, each keyword being associated with a respective one of the executable codes (col. 6, lines 7-14). McLroy, Greenfield and Nguyen failed to disclose, a macro handler operable to receive the one or more keywords from a parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with each keyword embedded within the macro language expression, and execute the retrieved executable codes to run the extended macro command associated with each of the one or more keywords without recompiling the macro language, the executable code not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the

predefined macro language alone. Brooks discloses, a macro handler operable to receive the one or more keywords from a parser, retrieve, from the registry of keywords and associated executable codes, the executable code associated with each keyword embedded within the macro language expression, and execute the retrieved executable codes to run the extended macro command associated with each of the one or more keywords without recompiling the macro language, the executable code not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone (col. 8, lines 3-68 and col. 9, lines 1-60). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify in McLroy, Greenfield, and Nguyen the teachings of Brooks because such a modification is well known in the art and would enhance McLroy's, Greenfield's, and Nguyen's extended keywords with the parser receiving the keyword first, then parsing the expression and the macro handler in response saving the previous contents of the processor registers (keywords) during execution of the main program with the user selecting the functions and submitting the macro command to run the code associated with the keywords with a prefix symbol.

With respect to claim 4, McLroy and Greenfield failed to disclose, a keyword registry of keywords and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective one of the new executable codes. Nguyen discloses, a keyword registry of keywords and associated executable codes is operable to be extended to include one or more new executable codes, each new keyword being associated with a respective

one of the new executable codes (col. 6, lines 7-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify in McILroy the teachings of Nguyen because such a modification would allow McILroy to have 33 keywords that can be used in the source code and for compiling the macro language.

With respect to claim 6, McILroy discloses, wherein the executable code includes machine operable instructions (Ppage 215, col. 1, paragraph 1.1 and col. 2, page 216 – col. 1, page 217).

Claim 10. McILroy discloses, The method of Claim 1, wherein identifying the one or more keywords in the macro language expression comprises recognizing one or more tokens in the macro language expression, and the method further comprises determining based on the predefined macro language that each token indicates the presence of a new macro command (page 215, col. 2 –page 216, col. 1, 1.5).

Claim 11. McILroy discloses, The method of Claim 1, further comprising breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command (page 216, col. 2, line 1- no. 2).

Claim 12. McILroy failed to disclose, The method of Claim 1, wherein the registry of keywords comprises a table of keywords and associated macro commands. Nguyen discloses a relational database with keywords and associated macro commands (col. 5, lines 1-23).

Claim 13. McILroy failed to disclose, The method of Claim 1, wherein the



registry of keywords comprises a database of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claim 14. McLroy and Nguyen failed to disclose, The system of Claim 3, wherein when identifying the one or more keywords in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command. Greenfield discloses, wherein when identifying the one or more keywords in the macro language expression the parser is operable to: recognize one or more tokens in the macro language expression; and determine based on the predefined macro language that each token indicates the presence of a new macro command (col. 8, lines 1-38).

Claim 15. McLroy and Nguyen failed to disclose, The system of Claim 3, wherein the parser is further operable to break the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command. Greenfield discloses, wherein the parser is further operable to break the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command (col. 8, lines 1-38).

Claim 16. McLroy and Nguyen failed to disclose, The system of Claim 3, wherein the registry of keywords comprises a table of keywords and associated

macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claim 17. McLroy and Nguyen failed to disclose, The system of Claim 3, wherein the registry of keywords comprises a database of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claim 18. McLroy discloses, The computer-readable medium of Claim 9, further operable to identify the one or more keywords in the macro language expression by:  
recognizing one or more tokens in the macro language expression; and  
determining based on the predefined macro language that each token indicates the presence of a new macro command (page 215, col. 2 –page 216, col. 1, 1.5).

Claim 19. McLroy and Nguyen failed to disclose, The computer-readable medium of Claim 9, further operable to perform the step of breaking the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command. Greenfield discloses, wherein the parser is further operable to break the macro language expression down into a plurality of elements, at least one of the plurality of elements comprising a pointer to the extended macro command (col. 8, lines 1-38).

Claim 20. McLroy failed to disclose, The computer-readable medium of Claim 9, wherein the registry of keywords comprises a table of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

Claim 21. McLroy and Nguyen failed to disclose, The computer-readable medium of Claim 9, wherein the registry of keywords comprises a database of keywords and associated macro commands. Nguyen discloses, wherein the registry of keywords comprises a database of keywords and associated macro commands (col. 8, lines 1-57).

### ***Response to Arguments***

7. Applicants' arguments filed 02/28/07 have been fully considered but they are not persuasive.

Issue no. 1: Applicants' Argue: Applicants' submit that McLroy, whether considered alone or in view of Official Notice, is deficient with respect to each of Applicants' steps of determining..., retrieving ..., and executing and to the overall combination of elements recited in claim 1 and McLroy does not disclose, teach, or suggest "determining, based on a predefined macro language one or more keywords in a macro language expression, each keyword being associated with an extended macro command that is not included in the predefined macro language as recited in Applicant's claim 1 has been considered but is not persuasive. Response: The Official Notice was in error because each claim limitation has a reference used to reject that claim

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limitation. It is interpreted according to Applicants' claim limitations that McILroy does teach the claim limitations of claim 1. "A predefined macro language" is given the broadest reasonable interpretation in light of the Specification. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Issue no. 2: Applicants' argue: McILroy does not disclose, teach, or suggest Applicant's identifying step, McILroy also does not disclose, teach, or suggest Applicants' step of executing each executable code retrieved from the registry to run the extended macro command associated with each of the one or more keywords in the macro language expression without recompiling the macro language, the executable code not included in the predefined macro language and resulting in the performance of a procedure not performed by execution of the predefined macro language alone as recited in claim 1 has been considered but is not persuasive. Response: The rejection of it being well known in the art is taken from the Aho, Sethi, and Ullman reference in the 11/26/02 rejection of claims 1-9.

Issue no. 3: Applicants' argue: Although Greenfeld discloses a parser, the parser of Greenfeld is not operable to identify one or more keywords embedded within the macro language expression, each keyword being associated with an extended macro command that is not included in a predefined macro language as recited in Applicants' claim 3 has been considered but is not persuasive. Response: It is interpreted that a parser regardless would be capable of performing the same function as Applicants' claim limitations of claim 3.

Issue no. 4: Applicants' argue: Furthermore, the additional disclosure of Brooks as relied upon by the Examiner does not cure the acknowledged deficiencies of McLroy and Brooks merely discloses a "ladder logic instruction" wherein "each macro instruct is placed in contiguous sections 62-65 of the library file 55. Thus, Brooks merely discloses that the logic processor identifies instructions in a control program and associates an opcode with the instruction has been considered but is not persuasive. Response: Brooks macro handler is interpreted as being capable of performing the claim limitations of claim 3.

Issue no. 5: Applicants' argue: Applicants' are referred to the recent Supreme Court decision of KSR International Co. v. Teleflex, Inc. and the KSR Standard for Patentability. The common sense selection (CSS) test holds that the mere selection of elements from various prior art references and combining them together with no change in their respective functions is a matter of common sense to one skilled in the art, and therefore obvious and not patentable. KSR, 82 USPQ 2d 1385.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"The C Book-Keywords and identifiers" discloses 32 keywords for its use.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

#### **Inquiries**

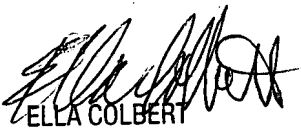
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 571-272-6741. The examiner can normally be reached on Monday, Wednesday, and Thursday, 5:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

October 23, 2007

  
ELLA COLBERT  
PRIMARY EXAMINER